

CLAIMS

1. A method of storing information configured to be used for a plurality of communication protocols to extract status information related to a monitored device among distinct devices communicatively coupled to a network, comprising:

retrieving, from a first memory, support information for extracting the status information using the plurality of communication protocols;
storing, in a second memory, the information obtained from the first memory for accessing the device using the plurality of communication protocols;
selecting a communication protocol among the plurality of communication protocols;
and

accessing the device using the selected communication protocol and the information stored in the second memory to extract the status information,

wherein the status information is extracted using virtual interface functions associated with an abstract software class and the virtual interface functions are common to each of the plurality of communication protocols.

2. The method of claim 1, wherein the information for extracting the status information using the plurality of communication protocols is stored in the second memory in protocol-dependent data structures.

3. The method of claim 1, wherein the retrieving step comprises:
retrieving, from the first memory, relative priority data associated with at least one type of status information for at least one communication protocol of the plurality of communication protocols.

4. The method of claim 4, wherein the relative priority data includes an indication of the quality of the at least one type of status information obtainable using each of the at least one communication protocol.

5. The method of claim 1, wherein the retrieving step comprises:

retrieving, from the first memory, relative priority data associated with at least one communication protocol of the plurality of communication protocols.

6. The method of claim 1, wherein the retrieving step comprises:
retrieving, from the first memory, at least one of a web page address, a keyword, and a relative location for accessing the device using HTTP.

7. The method of claim 1, wherein the step of accessing the device comprises:
extracting the status information using relative priority data associated with at least one type of status information for at least one communication protocol of the plurality of communication protocols.

8. The method of claim 1, wherein the selecting step comprises:
selecting a communication protocol among SNMP, HTTP, and FTP.

9. The method of claim 1, wherein the accessing step comprises:
transmitting to the device, information stored in the respective second memory necessary to access the device using the selected communication protocol.

10. The method of claim 9, wherein the accessing step comprises:
receiving, by the device, the transmitted information; and
processing, by the device, the received information.

11. A system for storing information configured to be used for a plurality of communication protocols to extract status information related to a monitored device among distinct devices communicatively coupled to a network, comprising:
means for retrieving, from a first memory, support information for extracting the status information using the plurality of communication protocols;
means for storing, in a second memory, the information obtained from the first memory for accessing the device using the plurality of communication protocols;
means for selecting a communication protocol among the plurality of communication protocols; and

means for accessing the device using the selected communication protocol and the information stored in the second memory to extract the status information,

wherein the status information is extracted using virtual interface functions associated with an abstract software class and the virtual interface functions are common to each of the plurality of communication protocols.

12. The system of claim 11, wherein the information for extracting the status information using the plurality of communication protocols is stored in the second memory in protocol-dependent data structures.

13. The system of claim 11, wherein the means for retrieving comprises:

means for retrieving, from the first memory, relative priority data associated with at least one type of status information for at least one communication protocol of the plurality of communication protocols.

14. The system of claim 13, wherein the relative priority data includes an indication of the quality of the at least one type of status information obtainable using each of the at least one communication protocol.

15. The system of claim 11, wherein the means for retrieving comprises:

means for retrieving, from the first memory, relative priority data associated with at least one communication protocol of the plurality of communication protocols.

16. The system of claim 11, wherein the means for retrieving comprises:

means for retrieving, from the first memory, at least one of a web page address, a keyword, and a relative location for accessing the device using HTTP.

17. The system of claim 11, wherein the means for accessing the device comprises:

means for extracting the status information using relative priority data associated with at least one type of status information for at least one communication protocol of the plurality of communication protocols.

18. The system of claim 11, wherein the means for selecting comprises:
means for selecting a communication protocol among SNMP, HTTP, and FTP.

19. The system of claim 11, wherein the means for accessing comprises:
means for transmitting to the device, information stored in the respective second
memory necessary to access the device using the selected communication protocol.

20. The system of claim 19, wherein the means for accessing comprises:
means for receiving, by the device, the transmitted information;
means for processing, by the device, the received information.

21. A computer program product having a computer usable medium for storing
information configured to be used for a plurality of communication protocols to extract status
information related to a monitored device among distinct devices communicatively coupled
to a network, comprising:

instructions for retrieving, from a first memory, support information for extracting the
status information using the plurality of communication protocols;

instructions for storing, in a second memory, the information obtained from the first
memory for accessing the device using the plurality of communication protocols;

instructions for selecting a communication protocol among the plurality of
communication protocols; and

instructions for accessing the device using the selected communication protocol and
the information stored in the second memory to extract the status information,

wherein the status information is extracted using virtual interface functions associated
with an abstract software class and the virtual interface functions are common to each of the
plurality of communication protocols.

22. The computer program product of claim 21, wherein the information for
extracting the status information using the plurality of communication protocols is stored in
the second memory in protocol-dependent data structures.

23. The computer program product of claim 21, wherein the instructions for retrieving comprise:

instructions for retrieving, from the first memory, relative priority data associated with at least one type of status information for at least one communication protocol of the plurality of communication protocols.

24. The computer program product of claim 23, wherein the relative priority data includes an indication of the quality of the at least one type of status information obtainable using each of the at least one communication protocol.

25. The computer program product of claim 21, wherein the instructions for retrieving comprise:

instructions for retrieving, from the first memory, relative priority data associated with at least one communication protocol of the plurality of communication protocols.

26. The computer program product of claim 21, wherein the instructions for retrieving comprise:

instructions for retrieving, from the first memory, at least one of a web page address, a keyword, and a relative location for accessing the device using HTTP.

27. The computer program product of claim 21, wherein the instructions for accessing the device comprise:

instructions for extracting the status information using relative priority data associated with at least one type of status information for at least one communication protocol of the plurality of communication protocols.

28. The computer program product of claim 21, wherein the instructions for selecting comprise:

instructions for selecting a communication protocol among SNMP, HTTP, and FTP.

29. The computer program product of claim 21, wherein the instructions for accessing comprise:

instructions for transmitting to the device, information stored in the respective second memory necessary to access the device using the selected communication protocol.

30. The computer program product of claim 29, wherein the instructions for accessing comprise:

instructions for receiving, by the device, the transmitted information; and
instructions for processing, by the device, the received information.